Recombinant TCHP protein (His tag)

Catalog Number	541152
Synonyms	Protein TCHP; Mitochondrial protein with oncostatic activity; Mitostatin; Tumor suppressor protein
Species	Human
Expression System	E. coli
Accession	Q9BT92
Molecular Weight	Predictes a molecular mass of 62.74 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 77 kDa band.

Product Information

Sequence Region	1-498
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>88%, by SDS-PAGE with Coomassie Brilliant Blue staining.
Endotoxin	Not tested.
Activity	Not tested.
Stability	Samples are stable for up to twelve months from date of receipt at -70℃
Protein Construction	DNA encoding 1-498 aa (Q9BT92) were fused with 6His tag.

Storage & Handling

Reconstitution	Reconstitute at 0.25 μg/μl in sterile water for short-term storage. Reconstitution with 50% glycerol solution is recommended for longer term storage (see Stability and Storage for more details). If a different concentration is needed for your purposes please adjust the reconstitution volume as required (please note: the ion concentration of the final solution will vary according to the volume used). Note: Centrifuge vial before opening. When reconstituting, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution.
Storage	Store it under sterile conditions at -20℃ to -80℃. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Shipping	In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise.

Description

Description	Recombinant human Trichoplein keratin filament-binding protein (TCHP), fragment 1-498, is a high-quality protein product designed for structural and biochemical studies. This fragment represents a stable and soluble unit of the tumor suppressor Mitostatin, ideal for investigating its roles in cytoskeletal regulation, cell growth inhibition, and ciliogenesis control. Trichoplein (TCHP), also known as Mitostatin, is a multifunctional tumor suppressor protein in humans that inhibits cell growth and promotes apoptosis under stress conditions. It functions by down-regulating HSPB1 through inhibition of its phosphorylation, particularly in bladder and prostate cancer contexts. The protein acts as a capping or branching regulator for keratin filaments, specifically K8/K18, and influences desmosome organization in epithelial cells. Additionally, TCHP serves as a negative regulator of ciliogenesis. It localizes to multiple cellular compartments including the cytoplasm, cytoskeleton, cell membrane, mitochondria, desmosomes, and centrosomes, reflecting its diverse roles in cellular architecture and signaling pathways. The provided recombinant fragment (1-498) encompasses key functional domains, enabling focused research on its mechanistic properties.